

FACT SHEET  
September 2003

City of Fort Wayne  
P.L. Brunner Water Pollution Control Plant  
2601 Dwenger Avenue  
Fort Wayne, Indiana  
Allen County

NPDES Permit No. IN0032191

BACKGROUND

This proposed renewal of a National Pollutant Discharge Elimination System (NPDES) Permit is for the City of Fort Wayne, Indiana whose current NPDES permit was issued March 1, 1985 and was modified July 2, 1986 to include effluent limitations and monitoring requirements for metals and requirements to operate a Pretreatment Program. The permit expired January 31, 1990, but was administratively extended with the submission of a timely renewal application until such time that it is renewed by the State. Upon request by the State, the City of Fort Wayne submitted a revised NPDES permit application in July 1995. Several sections of the application have since been revised to ensure that the information used to develop this permit renewal is current.

The City of Fort Wayne operates a Class IV, 60 MGD wastewater treatment facility. The treatment process includes activated sludge with single stage nitrification, phosphorus removal, disinfection with chlorine, and tertiary treatment via a terminal pond which also provides partial dechlorination. The sewage enters the treatment plant 32 feet below grade through a 7-foot semi-elliptical sewer. There is a diversion structure located on the Wayne Street interceptor approximately 300 feet west of the treatment plant, which diverts combined sewage in excess of the plant capacity to flow through an 84-inch sewer across the Maumee River to the storm water pump station wet well and then to Storm Water Pond No. 1.

The sewage flow is divided between two 7' wide by 60' long grit chambers equipped with electrically operated sluice gates at the inlet and hydraulically operated sluice gates at the outlet of the grit chamber. Sewage passes through 3/4 inch mechanically raked bar screens with rakings being ground and removed from the sewage flow. Grit is removed by mechanical scrapers to a sump pit. It is then pumped through a cast iron pipeline to a lagoon where the grit settles out. The lagoon supernatant is returned to the plant for treatment.

Four variable speed automatic controlled sewage pumps and one manually controlled 20 MGD pump driven by either a gas engine or electric motor provides 72 MGD total plant pump capacity. These pumps lift the sewage thirty-two feet from the wet well to the raw sewage channel.

The primary clarification tanks have a total capacity of 2,210,000 gallons. Detention time at an average flow rate is 1.7 hours. Rotary scum troughs are located on all primary clarification tanks. Raw sludge is removed by mechanical scraper and flows by gravity and manual controlled air lifts to the sludge pit. Raw sludge from primary tanks 1-5 is pumped by ODS pumps to the primary digester. Phosphorus is removed by the addition of either liquid alum, ferrous sulfate, or ferrous chloride applied to the primary treated sewage ahead of the aeration tanks.

There are nine two-bay aeration tanks. The capacity of ten bays is 1,050,000 gallons each. The other eight bays are 855,000 gallons each making a total capacity of 17,430,000 gallons. Average detention time with 30% return sludge is 5.8 hours and 4.8 hours respectively. All tanks are supplied air, discharging through fine air diffusers which have a grid pattern arrangement. The waste activated sludge normally returns by gravity to the sludge thickeners. If the thickeners are not available, waste sludge from secondary tanks 1-5 is piped directly to the raw sewage wet well and the waste sludge from tanks 6-9 is routed to the raw influent indirectly through the City sewers.

There are four 120-foot and five 125-foot diameter secondary clarifiers with peripheral feed and radial flow with a total capacity of 11,960,303 gallons. Average detention time with 30% sludge return is 4.5 hours. These tanks are equipped with revolving sludge removal mechanisms with all tanks having surface skimming devices. Secondary effluent flows over V-notched weirs which are metered and discharged to a diversion structure where chlorine is applied. Activated sludge is returned to the aeration tanks by air lift pumps. The secondary clarifiers are equipped with indicators for sludge blanket level detection.

Chlorine solution is added at the effluent chamber of secondary tanks 1-4. This flow combines with flow from tank 5 and then combines with secondary effluent of tanks 6-9 at the diversion structure located at the northeast of tank 5. The chlorinated effluent is then conveyed through a 72-inch pipe under the Maumee River to the contact tank and discharged to terminal pond # 3 which provides an additional 48 hours (at a flow maximum of 60 MGD) treatment of sedimentation and organic stabilization prior to discharging to the Maumee River.

Stabilized sludge disposal is handled by employing the shallow lagoon method of drying and then removal by mechanical equipment to be given away as a soil conditioner.

Storm Water Ponds Nos. 1 and 2 are designed and constructed for the collection, storage, and treatment of combined sewage flows in excess of treatment plant capacity. Excess flows from the Glasgow Regulator are diverted directly to the storm water ponds. The permittee must maximize flow to and through the wastewater treatment plant prior to diverting flows into pond 1 through the CSO pump station. Additionally, the permittee shall also maximize the volume of flow through the relevant portion of the collection system before collection system overflows and/or diversions into pond 1 may occur. These ponds are to be used in series. The discharge is from Storm Water Pond No. 2 via Outfall 002. If Terminal Pond No. 3 is taken out of service for routine maintenance, Storm Water Pond No. 2 may be used in its place if IDEM is notified at least ten days prior to discharge. The effluent limitations from Outfall 001 will be in effect for the duration of the discharge at Outfall 002.

The Fort Wayne POTW also serves the City of New Haven, Utilities Center, Inc., the Leo-Cedarville Sanitary District, the Maysville Sanitary District, the Town of Grabill, the Town of Hometown, portions of the Allen County Regional Sewer District, and the Town of Arcola.

### RECEIVING STREAMS

Discharge from the Fort Wayne WWTP, via Outfall 001, is to the Maumee River which has a seven-day, ten-year, low flow ( $Q_{7,10}$ ) of 78.0 cfs (50.4 MGD). The  $Q_{7,10}$  is based on the combined calculated  $Q_{7,10}$  values for the Saint Mary's River and the Saint Joseph River. There are additional discharges via Combined Sewer and Sanitary Sewer Overflows to the St. Mary's River, St. Joseph River, Spy Run Creek, Natural Drain #4, and Baldwin Ditch. The receiving streams are in the Lake Erie drainage basin, and are therefore subject to the Indiana Water Quality Standards applicable to all waters of the State within the Great Lakes System in accordance with 327 IAC 2-1.5. The all of the receiving streams have use designations of full body contact recreational (swimable), and shall be capable of supporting a well-balanced warm water aquatic community (fishable).

### COLLECTION SYSTEM

The Fort Wayne sewer collection system is both separate sanitary and combined sanitary and storm sewers by design. The collection system contains forty-four (44) Combined Sewer Overflow (CSO) outfalls. The current NPDES permit listed only the CSO Regulators from which the outfalls originate, therefore, the number of permitted CSO points has significantly increased though these are not considered new outfalls. The CSO locations, their receiving bodies of water, and all operational and reporting requirements pertaining to them are contained in Attachment A of the renewal permit.

The U.S. EPA issued an Order for Compliance, Docket No. V-W-96-AO-04, on January 17, 1996 (which supercedes the U.S. EPA's 1995 Order) to the City of Fort Wayne. This order required, among other things, the City to develop and submit a CSO Operational Plan and a Long-Term Control Plan (LTCP). Attachment A of the renewal permit reaffirms these requirements, and is designed to comply with Section 402(q) of the Clean Water Act and state law (including IC 13-11-2-120.5 and applicable state water quality standards). The City has submitted a draft LTCP to IDEM and U.S. EPA for approval. IDEM and U.S. EPA are currently reviewing the submitted LTCP.

Part VII of Attachment A includes a compliance schedule. The compliance schedule is for the prohibition contained in Part I.B of Attachment A against discharges from CSOs causing or contributing to violations of water quality standards, and applies only to the numeric *E. coli* criteria in 327 IAC 2-1.5-8(e).

The permittee shall maintain records to document its compliance with the requirement to maximize flow. The permittee will not be expected to maximize flow to the extent it would

result in severe property damage as defined in 327 IAC 5-2-8(11). Additionally, the City must maximize flow through the relevant portion of its collection system before a discharge from a CSO in that portion of the collection system may occur.

There are three Sanitary Sewer Overflows (SSOs) in the collection system. Discharge from these outfalls is expressly prohibited. The outfall locations, receiving streams, prohibitions and reporting requirements are contained in Attachment B of the permit renewal.

## INDUSTRIAL CONTRIBUTIONS

The City of Fort Wayne WWTP receives approximately 3.4 MGD of industrial flow according to its NPDES permit renewal application, which lists 38 significant industrial contributors. The City operates an Industrial Wastewater Pretreatment Program which is addressed in Part III of the renewal permit and later in this Fact Sheet. The City of Fort Wayne has been given effluent limitations and monitoring requirements for specific metals, which can be found in Part I.A.4 of the renewal permit. The City will also be required to conduct Whole Effluent Toxicity testing in accordance with Part I.E of the renewal permit.

## COMPLIANCE STATUS

Staff review of the most recently submitted Discharge Monitoring Reports show that the City of Fort Wayne is able to consistently meet the effluent limitations of its current NPDES permit for Outfall 001. Further review found occasional reported violations at Outfall 002 from Storm Water Terminal Pond No. 2, most notably total suspended solids and fecal coliform. At this time, there is no ongoing enforcement action between IDEM and the City of Fort Wayne with regard to its current NPDES permit.

## GREAT LAKES BASIN DISCHARGER ANTIDEGRADATION REQUIREMENTS

The permittee discharges into water bodies that are located in the Great Lakes basin. As such, it is subject to the water quality standards which are specific to Great Lakes basin dischargers as found in 327 IAC 2-1.5, 327 IAC 5-1.5, and 327 IAC 5-2. These rules, effective as of February 13, 1997, prohibit any action resulting in a significant lowering of water quality unless an antidegradation demonstration has been completed by the applicant and approved by IDEM. According to 327 IAC 5-2-11.3(b)(1), a significant lowering of water quality occurs when there is a new or increased loading of a bioaccumulative chemical of concern (BCC) from the permitted facility; or a new or increased permit limit for a non-BCC where the new or increased permit limit results in both a calculated increase in the ambient concentration of a pollutant in the receiving water body, and a lowering of water quality greater than a de minimis lowering of water quality. Because the discharge from this facility does not constitute a significant lowering of water quality as outlined in 327 IAC 5-2-11.3(b)(1), no antidegradation demonstration is required from the permittee as a part of its permit renewal application.

As required by 327 IAC 5-2-11.3(b)(1), the permit renewal (Part II.A.17) specifically prohibits the permittee from undertaking deliberate actions that would result in new or increased discharges of BCCs or new or increased permit limits for non-BCCs without first proving that the new or increased discharge would not result in a significant lowering of water quality, or by submission and approval of an antidegradation demonstration to IDEM.

## EFFLUENT LIMITATIONS AND RATIONALE

The effluent parameters to be limited and/or monitored in the discharge from Outfall 001 include: flow, 5-day Carbonaceous Biochemical Oxygen Demand (CBOD<sub>5</sub>), Total Suspended Solids (TSS), ammonia-nitrogen, total phosphorus, fecal coliform, pH, dissolved oxygen, total residual chlorine, *E. coli* and mercury. The effluent limitations proposed are based on a wasteload allocation (WLA) study which was performed by this Office's Modeling and Engineering Services Staff on July 7, 1994, which was revised on August 9, 1999, Indiana Water Quality Standards, the current NPDES permit and NPDES regulations. Monitoring frequencies are based upon facility size and type.

### Minimum Narrative Limitations

In accordance with 327 IAC 5-2-11.6(a), the NPDES permit renewal contains requirements for all point source discharges that are regulated by this permit to comply with the narrative water quality criteria of 327 IAC 2-1.5-8(b).

### Reporting Requirements

The NPDES permit requires the permittee to submit reports on a periodic basis. These reports include, but are not limited to, the following:

- 1) the requirement to submit monthly reports of operation and discharge monitoring reports (including CSO discharge monitoring reports) on a monthly basis, as described in Part I.B.3 of the permit;
- 2) written progress reports which are required as a function of any compliance schedules that are contained in the permit;
- 3) the Twenty-four Hour Reporting Requirements specified in Part II.C.3 of the permit;
- 4) spill notifications as required by Part II.C.9 of the permit.

It should be noted that the permittee is required to notify IDEM within 24 hours if more than trace amounts of foam are present in the discharge. It should also be noted that any noncompliance which may pose a significant danger to human health or the environment must be reported as soon as the permittee becomes aware of the noncomplying circumstances.

### Flow

Flow is to be measured daily as a 24-hour total. Reporting of flow is required by 327 IAC 2-4-1 and 327 IAC 5-2-13. This requirement is the same as found in the facility's current NPDES permit.

### CBOD<sub>5</sub> and TSS

These parameters have been set in the renewal permit in accordance with the August 9, 1999 WLA and the current NPDES permit. Existing limits are 5 mg/l monthly average for CBOD<sub>5</sub> and 10 mg/l monthly average for TSS. The weekly average concentration values for CBOD<sub>5</sub> and TSS are based on 1.5 times the monthly averages of those parameters. A review of the most recent submitted Discharge Monitoring Reports show that the facility has been capable of meeting these effluent limitations during periods of proper operation, with exceptions during periods attributable to extreme wet weather events.

### Ammonia-nitrogen

The current NPDES permit contains monthly average ammonia-nitrogen limits of 1.1 mg/l during the summer monitoring period (April 1 through October 31) and 2.2 mg/l during the winter monitoring period (November 1 through March 31). The weekly average concentration limits are based on 1.5 times the monthly average. The proposed final ammonia-nitrogen limitations have been calculated for the discharge within the Great Lakes System in accordance with 327 IAC 2-1.5-8(c)(5).

Daily maximum limitations have been included instead of weekly average limits in accordance with 327 IAC 5-2-11(d). The August 9, 1999 revised WLA proposes summer effluent limits of 1.7 mg/l as a monthly average and 4.1 mg/l as a daily maximum, and winter effluent limits of 1.8 mg/l as a monthly average and 4.2 mg/l as a daily maximum. The summer monthly average limit of 1.1 mg/l has been carried over from the previous permit due to antibacksliding considerations found in 327 IAC 5-2-10(11). The final winter limits have been adopted from the August 9, 1999 revised WLA.

The permittee has requested that a compliance schedule be included to allow time to evaluate the treatment process to ensure compliance with the new daily maximum effluent limits. The monthly and weekly average ammonia-nitrogen limits from the current NPDES permit are retained as interim limits until such time that the permittee can ensure compliance with the daily maximum limits, or one year from the effective date of the permit, whichever occurs first. A compliance schedule has been included in Part I.D.3 of the permit.

### Mass Limits for CBOD<sub>5</sub>, TSS, Ammonia-nitrogen and Total Residual Chlorine

The loading values for CBOD<sub>5</sub>, TSS, ammonia-nitrogen and total residual chlorine were calculated using the following formula: Design Flow (60 MGD) X 8.345 X Concentration Limit.

These values are limited as pounds per day. These parameters are required to be monitored by composite sample, with the exception of total residual chlorine which is collected by grab sample. Composite samples shall consist of a minimum of 12 grab samples taken over equal time intervals over a 24-hour period. The grab samples are required to be proportioned to flow. Mass limits for total residual chlorine have been included in the permit in accordance with 327 IAC 5-2-11.6(g).

### Phosphorus

Phosphorus is limited to 1.0 mg/l as a monthly average. 327 IAC 5-10-2 requires phosphorus removal or control facilities for a point source discharge where the daily discharge as a monthly average contains 10 pounds or more of total phosphorus, and:

- a. the discharge is within the Lake Michigan or Lake Erie drainage basins; or
- b. discharges up to 40 miles upstream to a tributary of a lake or reservoir.

Phosphorus removal facilities shall achieve a degree of reduction, as prescribed below, in total phosphorus content of the monthly average wastewater, or produce an effluent containing no more than 1.0 mg/l total phosphorus (P), whichever is more stringent.

<u>Phosphorus (P) Level in Raw Sewage (mg/l)</u>	<u>Required Removal (%)</u>
greater than or equal to 4	80%
less than 4, greater than or equal to 3	75%
less than 3, greater than or equal to 2	70%
less than 2, greater than or equal to 1	65%
less than 1	60%

In accordance with 327 IAC 5-10-2, the phosphorus limitations included in this renewal permit are based on the sliding scale shown above. This scale allows for the variability of phosphorus concentrations that can occur in the raw sewage.

### pH

The pH limitations are based on 40 CFR 133.102 which is cross-referenced in 327 IAC 5-5-3. To ensure conditions necessary for the maintenance of a well-balanced aquatic community, the pH of the final effluent must be between 6.0 and 9.0 standard units in accordance with provisions in 327 IAC 2-1.5-8(c)(2). pH is required to be monitored daily by grab sample.

### Dissolved Oxygen

The dissolved oxygen shall be no less than 7.0 mg/l as a daily minimum in the final effluent. The reported daily minimum concentration of dissolved oxygen in the final effluent

shall be the arithmetic mean determined by summation of the four daily grab sample results and dividing this sum by four. These samples are to be collected over equal time intervals during periods of operator attendance. This dissolved oxygen limitation has been established in accordance with the WLA performed on August 9, 1999 and is the same as found in the current NPDES permit.

#### Fecal Coliform and *E. coli*

The effluent is required to be disinfected on a continuous basis such that excursions above the bacteriological limitations do not occur. These standards apply during the recreation season, which is defined as the period from April 1 through October 31, annually.

The bacteria limits in the current NPDES permit are expressed as Fecal Coliform which shall not exceed a monthly average of 200 count per 100 ml nor a weekly average of 400 count per 100 ml. Fecal Coliform monthly and weekly averages shall be calculated as a geometric mean. Fecal Coliform is required to be monitored daily by grab sample. The permittee has three months from the effective date of the permit in which to convert its monitoring from Fecal Coliform to *E. coli*. This period of time has been deemed sufficient to allow Fort Wayne time to obtain the proper culture medium and training to perform *E. coli* monitoring. If this three month period is utilized, the permittee must notify the Data Management Section of the Office of Water Quality within 15 days of the effective date of the permit. After three months from the effective date of the permit, the Fecal Coliform limitations will no longer be in effect.

Bacteria concentration limits in the renewal permit are in accordance with 327 IAC 2-1.5-8(e). Fort Wayne shall monitor *E. coli* from Outfall 001, subject to the optional fecal coliform monitoring described above. Indiana Water Quality Standards for *E. coli*, as contained in 327 IAC 2-1.5-8(e), require that *E. coli* bacteria not exceed 125 count per 100 ml as a geometric mean over a 30 day period, nor exceed 235 count per 100 ml in any one sample in a 30 day period. These standards are used directly as effluent limitations in the renewal permit in accordance with 327 IAC 5-2-11.4(d)(2). *E. coli* is required to be monitored daily by grab sample.

#### Total Residual Chlorine

327 IAC 5-10-6 requires that the effluent be disinfected on a continuous basis such that excursions above the *E. coli* limitations do not occur from April 1 through October 31, annually. If the wastewater treatment plant uses chlorine in the treatment process for any reason from November 1 through March 31, the total residual chlorine effluent limitations and monitoring requirements shall be also be applicable at that time.

Wastewater treatment facilities which use chlorine for disinfection of the effluent must also dechlorinate the effluent. In accordance with Indiana Water Quality Standards, the final effluent limits at end of pipe for total residual chlorine are 0.01 mg/l as a monthly average and 0.02 mg/l as a daily maximum. Compliance with the daily maximum concentration limit shall be demonstrated if the measured daily effluent concentrations are less than the LOQ value for this

parameter (i.e. less than 0.06 mg/l). Since the GLI rules also require the inclusion of mass limits for total residual chlorine, it is also necessary to establish a corresponding compliance value for the daily maximum mass limits. Therefore compliance with the daily maximum mass value for TRC shall be demonstrated if the daily reported effluent mass values are less than 30.04 lbs/day.

327 IAC 5-2-11.6(h)(3)(D) also establishes the following procedure for the purpose of reporting the monthly average values for the final total residual chlorine on the monthly Discharge Monitoring Report forms. The daily effluent values on the Monthly Report of Operation form that are less than the LOQ may be assigned a value of zero (0), unless, after considering the number of monitoring results that are greater than the limit of detection (LOD), and applying appropriate statistical techniques, a value other than zero (0) is warranted.

A thirty-six month compliance schedule has been included in Part I.D.2 of the renewal permit for the final total residual chlorine limitations to be met, since this requirement was not included in the current NPDES permit.

The City of Fort Wayne may determine its own case-specific Method Detection Level (MDL) using the procedures specified in 40 CFR Part 136, Appendix B.

#### Cadmium

Cadmium is limited to 0.02 mg/l as a daily maximum in the current NPDES permit. Staff analyzed the last three years of reported data from the DMRs and MROs in accordance with the procedures of 327 IAC 5-2-11.5, and determined that the Projected Effluent Quality (PEQ) is less than the Preliminary Effluent Limit (PEL) of 4.8 ug/l as a monthly average in accordance with the August 9, 1999 revised WLA. Therefore, it is proposed to delete this effluent limitation from the renewal permit. However, cadmium is required to be sampled and reported from Outfall 001 under Part I.A.4 and 5 of the renewal permit.

#### Chromium

Chromium is limited to 0.25 mg/l as a daily maximum in the current NPDES permit. Staff analyzed the last three years of reported data from the DMRs and MROs in accordance with the procedures of 327 IAC 5-2-11.5, and determined that the PEQ is less than the PEL of 170 ug/l as a monthly average in accordance with the August 9, 1999 revised WLA. Therefore, it is proposed to delete this effluent limitation from the renewal permit. However, chromium is required to be sampled and reported from Outfall 001 under Part I.A.4 and 5 of the renewal permit.

#### Copper

Copper is limited to 0.02 mg/l as a daily maximum in the current NPDES permit. Staff analyzed the last three years of reported data from the DMRs and MROs in accordance with the procedures of 327 IAC 5-2-11.5, and determined that the PEQ is less than the PEL of 19 ug/l as a monthly average in accordance with the August 9, 1999 revised WLA. Therefore, it is proposed

to delete this effluent limitation from the renewal permit. However, copper is required to be sampled and reported from Outfall 001 under Part I.A.4 and 5 of the renewal permit.

#### Total Cyanide

Total cyanide is limited to 0.025 mg/l as a daily maximum in the current NPDES permit. Staff analyzed the last three years of reported data from the DMRs and MROs in accordance with the procedures of 327 IAC 5-2-11.5, and determined that the PEQ is less than the PEL of 4.3 ug/l as a monthly average in accordance with the August 9, 1999 revised WLA. Therefore, it is proposed to delete this effluent limitation from the renewal permit. However, 327 IAC 2-1.5-8(b)(3) establishes criteria for free cyanide for the protection of aquatic life. Therefore, free

cyanide is required to be sampled and reported from Outfall 001 under Part I.A.4 and 5 of the renewal permit.

#### Lead

Lead is limited to 0.05 mg/l as a daily maximum in the current NPDES permit. Staff analyzed the last three years of reported data from the DMRs and MROs in accordance with the procedures of 327 IAC 5-2-11.5, and determined that the PEQ is less than the PEL of 20 ug/l as a monthly average in accordance with the August 9, 1999 revised WLA. Therefore, it is proposed to delete this effluent limitation from the renewal permit. However, lead is required to be sampled and reported from Outfall 001 under Part I.A.4 and 5 of the renewal permit.

#### Mercury

Mercury is limited to 0.0005 mg/l as a daily maximum in the current NPDES permit. Staff analyzed the last three years of reported data from the DMRs and MROs and found that individual samples were reported that were greater than the PEL. In accordance with the procedures for reasonable potential found in 327 IAC 5-2-11.5, staff determined that the PEQ is greater than the PEL of 1.3 ng/l as a monthly average and 3.2 ng/l as a daily maximum. Therefore, it is proposed to include effluent limitations for mercury in the renewal permit.

Table 8-4 in 327 IAC 2-1.5(b)(6) lists substances and water quality criteria for the protection of wildlife. 327 IAC 2-1.5-8(b)(2)(D) states that the most stringent criteria must be used for certain toxic substances. The wildlife criteria for mercury is the most stringent, and therefore has been used to establish the effluent limits. However, because the proposed effluent limits are more stringent than the current effluent limits, a sixty-month schedule of compliance has been incorporated in Part I.D. of the renewal permit. During that period, the City of Fort Wayne will be required to meet the current effluent limits for mercury, or until the proposed limits can be met, whichever occurs first.

The City will be required to conduct a Pollutant Loading Study to identify sources of mercury into the collection system. Part III.B.1 specifically requires the City to develop and submit for OWQ's approval a Mercury Sampling and Analysis Plan to identify representative

sources of mercury discharged into the collection system, and to quantify the amounts being discharged by each type of source.

### Nickel

Nickel is limited to 0.05 mg/l as a daily maximum in the current NPDES permit. Staff analyzed the last three years of reported data from the DMRs and MROs in accordance with the procedures of 327 IAC 5-2-11.5, and determined that the PEQ is less than the PEL of 110 ug/l as a monthly average in accordance with the August 9, 1999 revised WLA. Therefore, it is proposed to delete this effluent limitation from the renewal permit. However, nickel is required to be sampled and reported from Outfall 001 under Part I.A.4 and 5 of the renewal permit.

### Zinc

Zinc is limited to 1.0 mg/l as a daily maximum in the current NPDES permit. Staff analyzed the last three years of reported data from the DMRs and MROs in accordance with the procedures of 327 IAC 5-2-11.5, and determined that the PEQ is less than the PEL of 200 ug/l as a monthly average in accordance with the August 9, 1999 revised WLA. Therefore, it is proposed to delete this effluent limitation from the renewal permit. However, zinc is required to be sampled and reported from Outfall 001 under Part I.A.4 and 5 of the renewal permit.

### Outfalls 002 and 003

The current NPDES permit contains effluent limitations and monitoring requirements for Outfalls 002 (Storm Water Pond No. 2) and 003 (Storm Water Pond No.1). The effluent limitations for TSS and CBOD<sub>5</sub> are numerically equivalent to secondary treatment standards; the bacteriological limitations are based on the state's water quality standards (currently located at 327 IAC 2-1.5-8(e)). As previously stated in this Fact Sheet, the Storm Water Ponds were designed and constructed for the collection, storage, and treatment of flows from the combined sewers greater than the treatment plant capacity. The ponds receive flows diverted through the Wayne Street interceptor and the Glasgow Regulator. Due to the fact that Outfalls 002 and 003 are regulated in Part I.A of this permit, these outfalls are not subject to the prohibition of dry weather discharges specified by Part I.D of Attachment A of this permit.

In 2000, the permittee requested that IDEM consider removing the limitations from Outfalls 002 and 003 on the theory that the outfalls from the ponds are CSOs and that case law (*Montgomery Environmental Coalition v. Costle*, 646 F.2d. 568 (D.C. Cir. 1980)) does not allow the imposition of technology-based limits that are based on secondary treatment requirements on CSO discharges. The permittee also argued that removing the limits would not violate antibacksliding regulations because the limits were based on an erroneous interpretation of law; the permittee stated its belief that this conclusion was consistent with an exception to antibacksliding set forth in 33 U.S.C. §1342 (o)(2)(B)(ii).

While IDEM has not concurred with these arguments, IDEM recognizes that limited options exist for adjusting the operation and maintenance of Storm Water Ponds to comply with

CBOD<sub>5</sub> and TSS parameters contained in secondary treatment requirements. IDEM does believe, however, that it is important to place limits on the ponds that help ensure that they are operated in such a manner as to treat the above mentioned parameters as effectively as possible. For that reason, IDEM has included two alternative sets of limits in this draft permit in order to give interested persons an opportunity to comment. The first set of limits (Table 4) for TSS and CBOD<sub>5</sub> are based on the limits set forth in the City's existing administratively extended permit; *E. coli* limitations have been established in lieu of fecal coliform to reflect current water quality standards. The second set of limits (ALT Table 4) for TSS and CBOD<sub>5</sub> limitations were derived from a statistical analysis of over six years of reported effluent data from the operation of the Storm Water Ponds and reflect the levels the City can achieve 95% of the time.

IDEM staff has not yet made a final determination concerning the alternative limitations; additional analyses would have to be performed to determine whether any applicable antibacksliding and antidegradation requirements have been met. IDEM is soliciting public comments concerning the alternative limitations via this draft permit renewal.

### TOXICITY TESTING

The City of Fort Wayne is required to institute a biomonitoring program within ninety days of the effective date of the permit. Whole Effluent Toxicity (WET) tests must be conducted to characterize any effluent effects on biota. These tests must be conducted once a month for a period of three months, then once a year for the duration of the permit. If acute or chronic toxicity is found in any of the tests, another toxicity test using the specified methodology and the same test species shall be conducted within two (2) weeks. If any two (2) tests indicate the presence of toxicity, the permittee must begin the implementation of a toxicity reduction evaluation (TRE) as required in this draft permit to determine means for eliminating the toxic agents from the effluent. The no observed adverse effect level (NOAEL), used in determination of the chronic toxicity, was determined to be 82.6 % by using the following formula:

$$NOAEL = \frac{Q_e}{Q_e + 1/4 Q_{7,10}} \times 100$$

where the  $Q_e$  is the discharge flow (60 MGD) and the  $Q_{7,10}$  of the receiving stream is 50.4 MGD. All tests are to be taken from Outfall 001.

### INDUSTRIAL PRETREATMENT

The City of Fort Wayne operates an approved Pretreatment Program. As in the current NPDES permit, the City of Fort Wayne is required to issue and reissue permits to Significant Industrial Users, conduct industrial compliance monitoring, and enforce its Sewer Use Ordinance as well as meet all the requirements found in Part III of this renewal permit. As in the previous permit, the City will be required to monitor for selected metals and inorganics in its influent to determine the effectiveness of its Pretreatment Program.

## REOPENING CLAUSES

There are six reopening clauses contained in Part I.C. of the renewal permit. All reopening clauses are subject to public hearing and public notice. The first clause is to incorporate effluent limits from any further wasteload allocations performed. The second clause would allow for changes in the sludge disposal standards to be incorporated in the permit. The third clause would allow for effluent limitations to be applied in the event of changes to the State Water Quality Standards. The fourth clause allows permit limits based on whole effluent toxicity resulting from WET testing or the results of a TRE. The fifth clause would allow the permittee to determine its own case specific Method Detection Level. The sixth clause allows for additional metals or toxics to be added to the permit as a result of required monitoring.

## SOLIDS DISPOSAL

Collected screening, slurries, sludge, and other such pollutants shall be disposed of in accordance with the Land Application Permit No. INLA000313, 329 IAC 10, 327 IAC 6.1, or must comply with existing federal regulations governing solids disposal and sludge disposal found in 40 CFR 503. The City shall notify the Commissioner prior to any changes in its sludge disposal practices.

## PERMIT TERM

A five-year permit is proposed.

Drafted by: Jay Hanko.